

IN THE CLAIMS

The listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A dichroic polarizer including comprising:
a substrate,
two reflective coatings, and
a layer dichroically absorbing electromagnetic radiation,
wherein two reflecting coatings are introduced, at least one of which being the reflective coatings is partially transmitting, and with the layer dichroically absorbing electromagnetic radiation is located between the two reflecting reflective coatings.

Claim 2 (currently amended): [A] The dichroic polarizer of Claim 1, wherein both reflecting reflective coatings are made partially transmitting.

Claim 3 (currently amended): The dichroic polarizer of Claim 1, wherein materials and thicknesses of the layers material and thickness of the layer dichroically absorbing electromagnetic radiation as well as the reflecting coatings are chosen from the requirement to obtain, at the exit of the dichroic polarizer, an interference minimum for the absorbing component of electromagnetic radiation for at least one wavelength range.

Claim 4 (currently amended): The dichroic polarizer of any of the Claims 1 or 2 or 3 Claim 1, wherein at least one coating reflecting electromagnetic radiation of the reflective coatings is made of metal.

Claim 5 (currently amended): The dichroic polarizer of any of the Claims 1 or 2 or 3 Claim 1, wherein at least one coating reflecting electromagnetic radiation of the reflective coatings is made of multiplayer multilayer dielectric mirror of the interchanged layers of materials with high and low refraction coefficients.

Claim 6 (currently amended): The dichroic polarizer of any of the Claims 1 or 2 or 3 or 4 or 5 Claim 1, wherein the layer dichroically absorbing electromagnetic radiation is made of an oriented layer of at least one dichroic dye applied from the lyotropic liquid crystalline state.

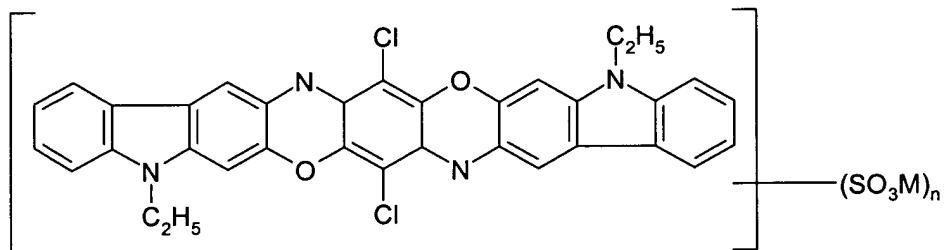
Claim 7 (currently amended): The dichroic polarizer of ~~any of the claim~~ Claim 2, wherein at least one ~~coating reflecting electromagnetic radiation of the reflective coatings~~ is made of metal.

Claim 8 (canceled)

Claim 9 (currently amended): The dichroic polarizer of ~~any of the claim~~ Claim 2, wherein at least one ~~coating reflecting electromagnetic radiation of the reflective coatings~~ is made of multilayer dielectric mirror of the interchanged layers of materials with high and low refraction coefficients.

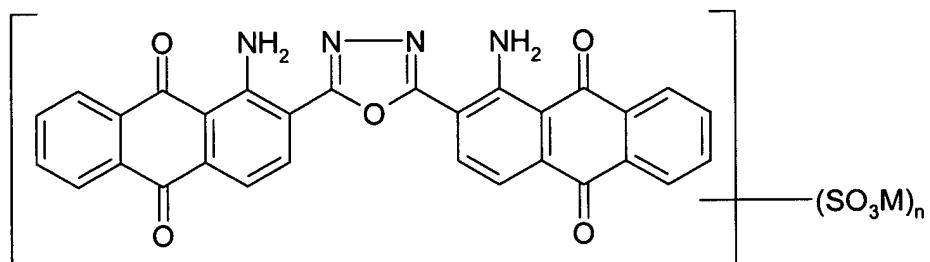
Claim 10-18 (canceled)

Claim 19 (new) The dichroic polarizer of any one of Claim 6 wherein said dichroic dye is selected from the group consisting of molecules having the following formulas I – X:



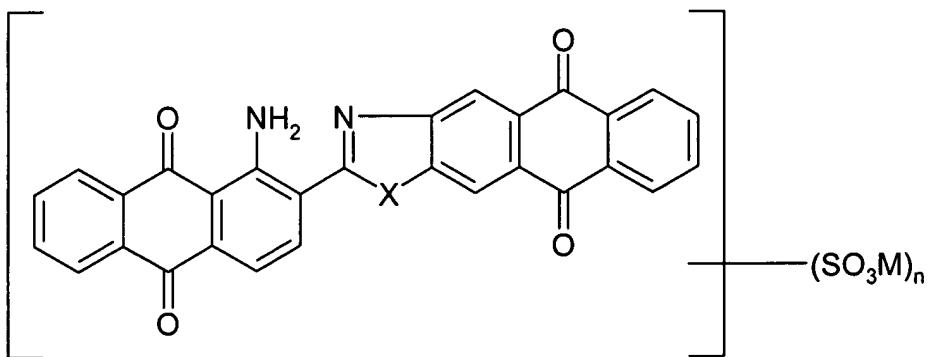
I

wherein n is an integer in the range of 2 to 4, and M is a cation;



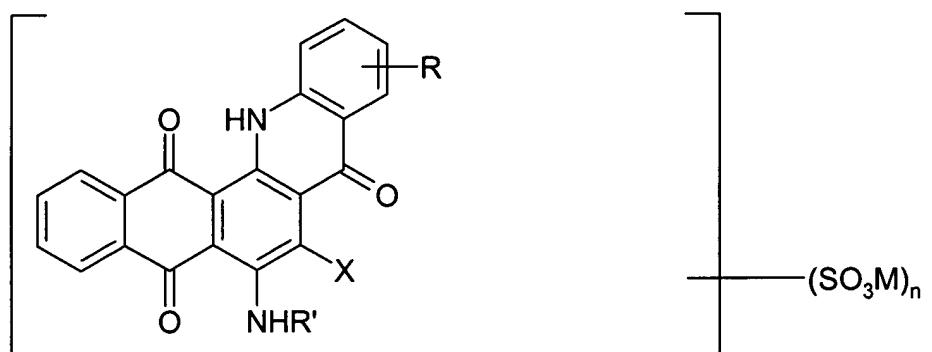
II

wherein n is an integer equal to 2, and M is a cation;



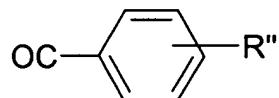
III

wherein n is an integer equal to 2 or 3, X is S or O, and M is a cation;

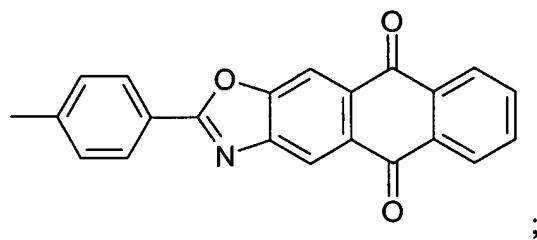


IV

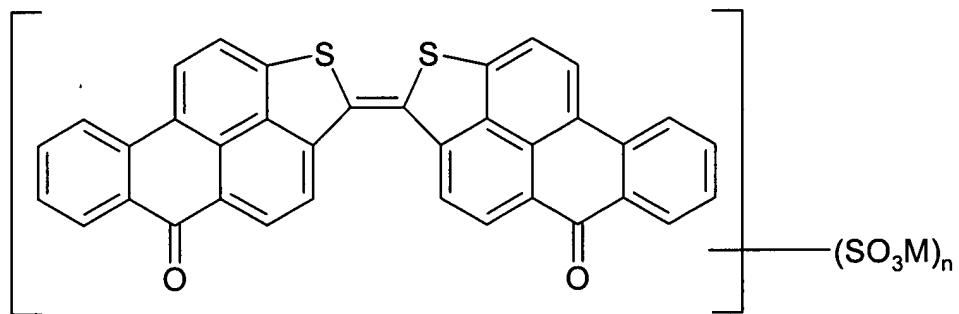
wherein R is H or CF_3 , X is individually selected from the group of H, Br, and SO_3M ; n is an integer in the range of 1 to 3, M is a cation, R' is individually selected from the group consisting of H,



wherein R' = H, Cl, and

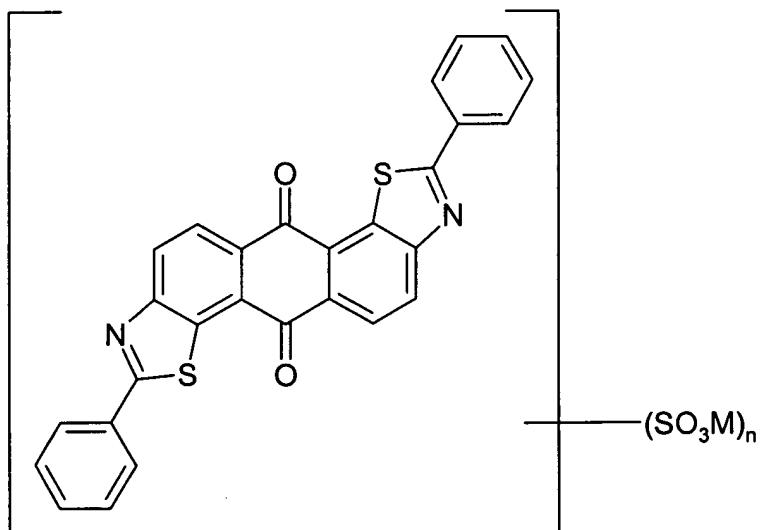


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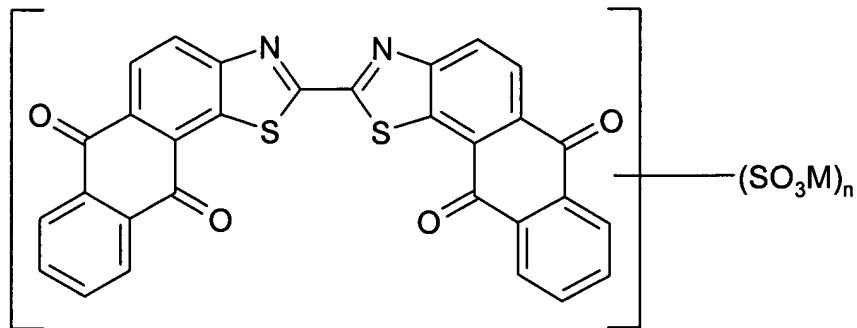
V

wherein n is an integer in the range of 2 to 4, M is a cation;



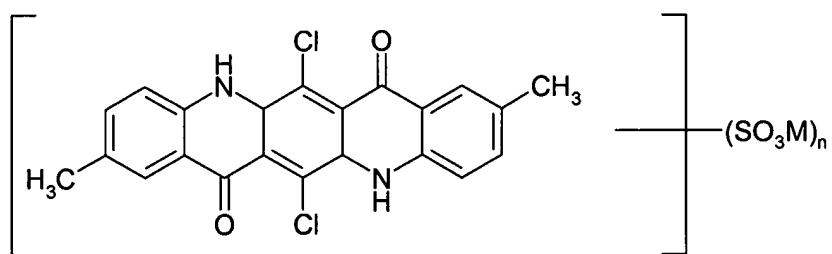
VI

wherein n is an integer equal to 2, and M is a cation;



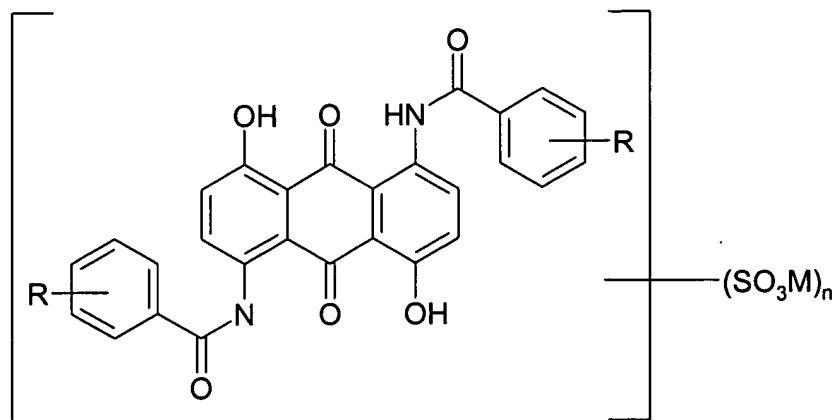
VII

wherein n is an integer equal to 2, and M is a cation;



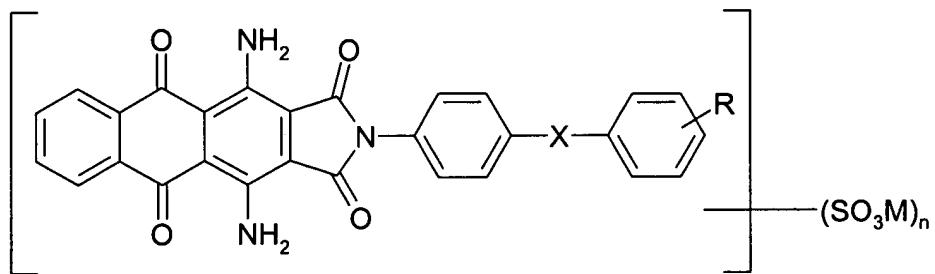
VIII

wherein n is an integer equal to 2 or 3, and M is a cation;



IX

wherein R is individually selected from the group consisting of H, Cl, Alk, and OAlk, n is an integer equal to 2, and M is a cation; and



X

wherein R is individually selected from the group consisting of H, OAlk, NHR', Cl, and Br; X is individually selected from the group consisting of O, NH, and CH₂; n is an integer equal to 2, and M is a cation.